DOCUMENT RESUME

ED 245 186 CS 007 593

AUTHOR O'Shea, Lawrence J.; Sindelar, Paul T.
TITLE The Effects of Repeated Readings and Attentional Cuing on the Reading Fluency and Comprehension of Third Graders.
PUB DATE Apr 84
NOTE 10p.; Paper presented at the Annual Meeting of the American Educational Research Association (68th, New Orleans, LA, April 23-27, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Attention Control; *Cues; *Directed Reading Activity; Grade 3; *Oral Reading; Primary Education; *Reading Comprehension; Reading Improvement; *Reading Research; *Reading Strategies

ABSTRACT

To determine the effects of repeated readings with cues on reading fluency and comprehension, a study was conducted on 30 third grade students reading at or above grade level, utilizing three equally difficult passages. Half the children were told to read for meaning, and the other half were cued to read for speed and accuracy. These cues were repeated before each reading, and the children were timed during the final reading of each passage, their errors were recorded, and their reading rate in words per minute was estimated for use as the measure of reading fluency in the data analysis. As the subjects recounted the stories, they were videotaped and the tapes later were analyzed to determine the proportion of propositions retold as a measure of comprehension. Data revealed that (1) reading fluency increased 22% from one to three readings and 9% from three to seven readings independent of the attentional cue given, (2) fluency was greater among children cued to read rapidly and accurately regardless of the number of times the passage was read, (3) comprehension was greater among children cued for meaning, and (4) three to four readings would seem optimal in that the greatest gain in fluency and comprehension is achieved by then. (CRH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED245186

The Effects of Repeated Readings and Attentional Cuing on the Reading Fluency and Comprehension of Third Graders

Lawrence J. O'Shea
University of Florida

Paul T. Sindelar
The Pennsylvania State University

CS007593

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Paul T. Sindelar
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The Effects of Repeated Readings and Attentional Cuing on the Reading Fluency and Comprehension of Third Graders

Purpose of the Study

The theory of automatic information processing of LaBerge and Samuels (1974) suggests that, in reading, fluent decoding of words eliminates the need for the reader to direct attention to decoding. Attention becomes available to process other information, for example, the meaning of the passage. Within this framework, automatic decoding--that is decoding that requires little or no attention--can be conceptualized as a necessary precondition for comprehension. If attention shifts automatically from decoding to comprehension as decoding becomes automatic, then automatic decoding can be considered a sufficient precondition.

Several studies in which the method of repeated readings was examined (Carver & Hoffman, 1981; Chomsky, 1976; Dahl, 1979; Gonzales & Elijah, 1975; Samuels, 1979) support the notion that automatic decoding is a sufficient precondition for comprehension. In these studies repeated practice to preset criteria of fluency resulted in faster reading speeds, greater accuracy, and increased comprehension. On the other hand, studies in which fluency was increased by training words in isolation (Fleisher, Jenkins, & Pany, 1979; Spring, Blunden, & Gatheral, 1981) have shown that fluency can be increased with no

concurrent effect on comprehension. These results suggest that fluency may be necessary but not sufficient for comprehension.

This discrepancy can be explained using concepts from the LaBerge and Samuels model: Although attention is made available when automatic decoding is achieved, it may not automatically shift to comprehension. If attention is available but not redirected to comprehension, then a simple strategy--such as a verbal cue to read for meaning--might prove sufficient to improve the comprehension of fluent readers. Studies of the effects of cues to alter reading performance (DiStefano, Noe, & Valencia, 1981; Frase & Kreitzberg, 1975; Grant & Hall, 1967; Pehrsson, 1974) have proven generally successful.

It was the purpose of our study to determine the effects of repeated readings with cues for comprehension or cues for fluency on reading fluency and comprehension.

Methods

Thirty third-graders reading at or above grade level read three equally difficult passages: one once, one three times, and one seven times. Half of the children were told to read for meaning; they were instructed to "Remember as much about the story as you can". The other half were cued to read for speed and accuracy; they were told to "read as quickly and accurately as you can". These cues were repeated before each reading of each passage.

The children were timed during the final reading of each passage and their errors were recorded. The number of words read per minute (WPM)

was calculated and used as the measure of reading fluency in the data analyses. In addition, after the final reading of each passage, the children were asked to retell as much about the story as they could remember. The children were taped as they retold the stories and the recordings were later analyzed (using the procedure described by Kintsch, 1974) to determine the proportion of propositions (POP) retold. POP was used in the data analyses as our measure of reading comprehension.

Results

In general, we found that both variables--repeated readings and attentional focus--produced significant effects on fluency and comprehension and that these effects were independent of one another. Thus, we can discuss the results of repeated readings separately from the results of the attentional cues.

Repeated Readings

Reading fluency increased from 1 to 3 to 7 readings independent of the attentional cue with which the children were provided. In Table 1, the average wpm of the Fluency and Comprehension Groups are shown. The mean number of wpm increased from 109 with one reading, to 133 with three readings, to 145 with seven. All of these differences were statistically significant.

The same pattern was observed in the analysis of the reading comprehension data that is shown in Table 2. The proportion of propositions retold increased from .20 with one reading, to .27 with three, to .31 with seven. The latter two POP measures did not differ, but both were greater than the former.

Insert Tables 1 and 2 about here

Attentional Focus

Reading fluency was greater among the children cued to read rapidly and accurately regardless of the number of times they had read the passage. As can be seen in Table 1, the children instructed to read rapidly and accurately averaged 138 wpm; the children cued to read for meaning averaged 120 wpm.

Reading comprehension was greater among the children cued to read for meaning, again regardless of the number of times they had read the passage. Table 2 shows that the mean proportion of propositions retold was .31 for the cue-for-meaning group and .21 for the cue-for-fluency group.

Discussion

Our results show that reading fluency increases and reading comprehension improves with repeated readings of the same passage and, in this respect, our results are consistent with previous investigations. The children in our study increased their reading fluency 22% from one to three readings and 9% from three to seven. Their comprehension scores improved 35% from one to three readings and 15% from three to seven. Our results also address the question of the optimal number of readings. We found that 80% of the gain in fluency from one to seven readings was achieved following the fourth reading of a passage. Furthermore, although reading comprehension did improve significantly from one to three readings, it did not improve

significantly from three to seven. Thus, three or four readings would seem optimal in the sense that most of the gain in fluency and comprehension is achieved by then.

We also found that children read more fluently (by 15%) when instructed to read rapidly and accurately than when instructed to read for meaning. However, children were better able to retell the stories (by 48%) when cued to meaning. When the relative effects of repeated readings and attentional cues are considered, it can be argued that the latter is more efficient in improving comprehension: When cued for meaning, the children retold 25% of the story propositions after one reading; when cued for fluency, the same proportion was not reached until seven readings.

Finally, our readers benefited from the repeated readings method regardless of the cue they were provided. The readers in the cue-for-fluency group did not require a cue to attend to meaning in order for their comprehension to improve. Apparently, their attention was shifted to comprehension without an explicit instruction to do so.

References

Carver, R. P., & Hoffman, J. V. (1981). The effect of practice through repeated reading on gain in reading ability using a computer-based instructional system. Reading Research Quarterly, 16, 374-390.

Chomsky, C. (1976). After decoding: What? Language Arts, 53, 288-296.

Dahl, P. R. (1979). An experimental program for teaching high speed word recognition and comprehension skills. In J. E. Button, T. C. Lovitt, & T. D. Rowland (Eds.), Communications research in learning disabilities and mental retardation. Baltimore: University Park Press.

DiStefano, P., Noe, M., & Valencia, S. (1981). Measurement of the effects of purpose and passage difficulty on reading flexibility. Journal of Educational Psychology, 73, 602-606.

Fleisher, L. S., Jenkins, J. R., & Pany, D. (1979). Effects on poor readers' comprehension of training rapid decoding. Reading Research Quarterly, 5, 30-48.

Frase, L. T., & Kreitzberg, V. S. (1975). Effect of topical and indirect learning directions on prose recall. Journal of Educational Psychology, 67, 320-324.

Gonzales, P. C., & Elijah, D. V. (1975). Rereading: Effect on error patterns and performance levels on the IRI. Reading Teacher, 28, 647-652.

Grant, E. B. & Hall, M. (1967). The effect of purposeful reading on comprehension at differing levels of difficulty. Paper presented at the Annual Meeting of the International Reading Association, Seattle.

Kintsch, W. (1974). The representation of meaning in memory. Hillsdale, NJ: Lawrence Erlbaum.

LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. Cognitive Psychology, 6, 293-323.

Pehrsson, R. S. V. (1974). The effects of teacher interference during the process of reading or how much of a helper is Mrs. Gelper? Journal of Reading, 17, 617-621.

Samuels, S. J. (1979). The method of repeated readings. The Reading Teacher, 32, 403-408.

Spring, C., Blunden, D., & Gatheral, M. (1981). Effect on reading comprehension of training to automaticity in word-reading. Perceptual and Motor Skills, 53, 770-786.

Table 1. Mean number of words read per minute by group and number of readings

	Words Per Minute			
	1	3	7	Total
Fluency	117	142	155	138
Comprehension	101	124	134	120
Total	109	133	145	129

Table 2. Mean proportions of propositions retold by group and number of readings (decimals omitted).

	Proportions of Propositions Retold			
	1	3	7	Total
Fluency	15	22	26	21
Comprehension	25	32	37	31
Total	20	27	31	26